6-896-18



Some of the 69 summer students who arrived at Brookhaven on Monday and will be onsite until August 18.

## Summer Students On BNL Campus

If you were among the 69 summer research students who came to BNL on June 4th or 5th, your arrival had been foreseen 30 years ago.

In 1948, George B. Pegram, representing the nine sponsoring Universities, wrote, "the present undersupply of workers in nuclear science and engineering is critical, and the only way to bring it to an end is to train young men." The sponsors envisioned a laboratory which, "would in no way take over the educational functions of the Universities, but would. . . allow. . . students to engage at the laboratory in research of a type too extensive to be carried on at the Universities."

The vision was formalized and dechauvinized in 1952 when the Summer Student Program was initiated. Since that time, the number of applicants has been about 600 per year, out of which approximately 100 young men and women are chosen to participate as research assistants.

To ward off any excessively swollen heads, Glenn A. Price, Head of Academic Relations, recently noted that although competition is as rigorous as the figures imply, selections are not made solely on the basis of academic achievement and recommendations. Placement in the program is also contingent on the candidate's interest,

and projects already in progress at the Lab. Dr. Price hopes the summer students will "better understand that research is an inquiry, a searching and not exclusively the lab-type experiments conducted in school courses." He further recommends that students question their supervisors. "Your uninhibitedness," Dr. Price stated, "stimulates the instructors to review certain customary techniques."

The summer students of 1978 represent over 50 different institutions and will work in all of BNL's scientific departments. Kim Snable, College of New Rochelle, '78, is one of this year's participants. Kim had completed no less than four hours of her first day here when she found that she'd be spending two weeks in August in Tennessee. Kim will work from an airplane to "study sulfate species in power plant plumes." Alliteration aside, she is "very enthusiastic" about her assignment.

Janet Olsen, Vassar, '78, will be expanding her biology background by "gaining experience in an in-depth research project in bacteria."

Debbie Zuckerman, Yale, '78, is spending her second consecutive summer at BNL and is "very excited" to be back. She will be working in the Medical Department on a project related to but not the same as her work last year. Debbie hopes to apply her knowledge to nuclear medicine at Boston University.

Mark Hofmann, Swarthmore, '78, has been assigned to the Instrumentation Division where he will use his electrical engineering background to assemble an LS-11 microprocessor. He expects to "gain experience in the research, design and development of electronic instrumentation."

Bob Hazle, University of Rhode Island, '79, hopes to "get as much as possible" from his summer in the Department of Energy and Environment. In addition to "a good summer at the beach," Bob expects to gain guidance in deciding on the type of chemistry and material sciences career he might eventually choose.

When asked to evaluate the program, the (continued on page 2)

6-899-78



FOUND in front of Compton House (Men's Residence): One (1) windsurfer atop black Beetle and two (2) tenspeeds astride a sedan. Such scenes can mean only that summer, with its attendant student influx, has indeed arrived at BNL. Stan Bajuk, left, a summer research student in the Chemistry department, boards his windsurfer while Gregg Johnstone, seated left, Ira Garelick and Ed Salomon from Rutgers decorate Gregg's car. Gregg, Ira and Ed are working in Safety and Environmental Protection as part of the master's program in health physics.

# It's 50 Letters For Tandem

On Monday, the Tandem Van de Graaff personnel celebrated the very recent publication of the 50th Letter reporting experimental results obtained at the facility. Letter journals contain "short communications dealing with important new discoveries of topics of high current interest in rapidly changing fields of research" and have provided the vehicle for publication of the most exciting results in physics.

In July 1969, the first beams were obtained from the Tandem, and in November 1970, the first Letter, reporting on lifetimes of levels in 38Ar, was published in the journal Physics Letters by G. Engelbertink, Keith Jones, John Olness, and Ernest Warburton of BNL. Two weeks ago the fiftieth Letter reporting experimental results obtained at the Tandem was published in Physical Review Letters. The subject was the "Population of Resonant 12C+ <sup>12</sup>C States via the Reaction <sup>12</sup>C(<sup>16</sup>O,α) <sup>24</sup>Mg" and reported results obtained by A. Lazzarini, E. Cosman, A. Sperduto, S. Steadman, W. Thoms and G. Young, a user group from MIT.

The Brookhaven Tandem facility has provided nuclear experimenters with the capability of a great variety of energetic, high quality heavy ion beams. These beams have been skillfully exploited for a continuing series of significant discoveries.

New isotopes far from the valley of stability were produced and their important characteristics examined. Energetic heavy ion beams of the Tandem have served to reveal what happens in the nuclear realm of high angular momenta. How large masses of nuclear matter interact with one another, exchange particles, energy, and angular momenta have been questions in the frontier of nuclear physics addressed by Tandem research. Recent work has demonstrated the widespread occurrence of nuclear orbiting in heavy systems. By passing heavy ion beams through thin foils, atoms largely denuded of their electrons are produced and permit study of phenomena of interest to astrophysics and solid state physics as well as the applied technology of fusion devices. These fields have been the subjects of the Letters.

The Tandem Van de Graaff facility is available to University and other interested outside experimentalists. Of the fifty Letters published since 1970, approximately one-third are by BNL scientists, one-third by outside users, and one-third are the result of collaborations between outside and BNL experimenters.

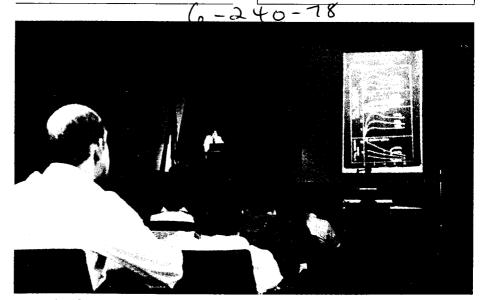
In addition to these fifty Letters there are many other publications resulting from work at the Tandem, as well as from work by members of the Tandem Research group not using the Tandem facility. These number some twenty additional Letters and over 200 articles in The Physical Review and other journals.

The Tandem has been one of the most productive facilities in the American nuclear physics community during these years. Letters on research at BNL published in these years account for close to eight per cent of the total number of experimental nuclear physics Letters published by U.S. laboratories – a fraction large compared to the BNL Tandem share of the National nuclear physics budget.

# On Tour This Weekend

The featured mini-tour on Saturday and Sunday will be the Tandem Van de Graaff Accelerator Facility, the world's highest energy Van de Graaff system. Brookhaven is the only place where two of these accelerators are used together to do nuclear experiments. Scientists will be on hand to explain how atomic nuclei are accelerated and to demonstrate some of the experiments in which these particles are used. Tour hours are 10 a.m. to 4 p.m.

EXHIBIT CENTER



At Session IV of the symposium in Berkner Hall, Dr. T. Akazawa, Nagoya University, Japan, presented his paper on "Structural Aspects of Ribulose 1,5-Bisphosphate Carboxylase."

## Biology Sponsors 30th Symposium

The 30th Brookhaven Symposium in Biology, held at Brookhaven last week, attracted about 150 scientists from various universities, laboratories and private industry, both in the United States and abroad. This year's symposium focused on photosynthetic carbon assimilation. Invited papers and a poster session for relevant contributed papers covered a wide range of fields, from agronomy to x-ray crystallography. Conference proceedings are expected to be published this fall.



During an afternoon break, symposium chairman, Harold W. Siegelman, conducted a tour of some of the Biology Department laboratories. Here he is showing visitors how marine algae is grown at Brookhaven.

6-244-18

## Arrivals & Departures

#### Arrivals

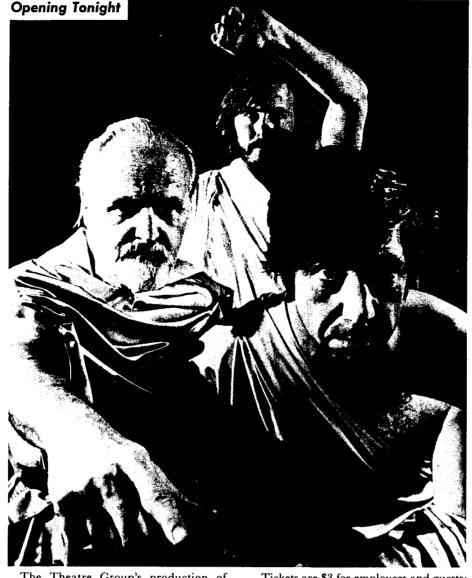
Patrick M. Calabrese	Accelerator
Edmond J. Desmond	Biology
Frank Flegar	Central Shops
Annmarie T. Grassfield	Contr. & Proc.
John H. Heiser	Nuclear Energy
Sven A. Landstrom	Plant Engrg.
Donald S. Makowiecki	Physics
Frances E. Nusz	Supply & Materiel

#### Departures

Thomas T. Boles	Biology
Anthony J. Catanese	App. Math
Janis T. Fritts	Energy & Env.

## Cafeteria Menu Week Ending June 16, 1978

_	
Monday, June 12	
Tomato vegetable soup (cup)	.30
(bowl)	.40
Bratwurst w/red cabbage	1.25
Knickerbocker sandwich w/cole slaw	
and chips	1.25
Hot Deli - Pastrami (on bread)	1.15
(on roll)	1.25
Tuesday, June 13	
Cream of potato soup (cup)	.30
(bowl)	.40
Meatloaf and 1 veg.	1.20
Macaroni and cheese and 1 veg.	1.10
Hot Deli - Corned Beef (on bread)	1.25
(on roll)	1.35
Wednesday, June 14	
Vegetable beef (cup)	.30
(bowl)	.40
Tuna noodle casserole	1.20
Lemon baked chicken and 1 veg.	1.20
Hot Deli – Veal and peppers hero	1.25
Thursday, June 15	
Chicken noodle soup (cup)	.30
(bowl)	.40
Sweet and sour pork on rice	1.30
Salisbury steak w/1 veg.	1.25
Hot Deli – Baked Virginia	
ham (on bread)	1.25
(on roll)	1.35
Friday, June 16	
New England clam chowder (cup)	.40
(bowl)	.50
Broiled filet w/1 veg.	1.20
Roast sirloin of beef and 1 veg.	1.40



The Theatre Group's production of "Tiger at the Gates" opens tonight June 9 at 8:30 p.m. in Berkner Hall. Other performances are scheduled for June 10, 16 and 17. Featured in the cast are (from left) Richard Perry (Priam), Dennis Weygand (Hector) and Gus Basile (Abenos). Some of the other 22 members of the cast are Bob Phillips, Stan Lowell, David Dew-Hughes, Kurt Fuchel, Ruth Basile, Marc Rosenthal, Tom Davis, Donald Malloy, Dick Rothe and Jeanne Skully.

Tickets are \$3 for employees and guests; \$2 for those over 65 and under 18. They are on sale at lunchtime in the cafeteria or available in the following buildings via:

Helen Keeley	911A	AGS
Paula Hughes	902A	ISA
Gail Thompson	490	Medical
Irene Steele	463	Biology
Pat Kavanagh	750	HFBR
Gail Williams	460	Directors Office
Gail Williams	460	Directors Office
Sharon Smith	510 <b>A</b>	Physics

WAVE CRESTS

## **AUI-IBEW Negotiations**

The labor contract between Associated Universities, Inc. and Local Union 2230 of the International Brotherhood of Electrical Workers expires July 31, 1978. The first negotiation session took place June 1 at the Brookhaven Center.

Members of the Laboratory Negotiations Committee are: D. Davis, W. Walker, J. Washburne, W. Webster, and J. White.

Members of the Union Negotiations Committee are: C. Geonie, F. Candiano, C. Hobson, D. Johnstone, J. O'Reilly, R. Farmer, L. Morris, G. Dioguardo, S. Gracia, S. Strelecki, J. Salvato, F. Norton, and the IBEW International Representative.

## Student Arrivals (Cont'd)

"Group of '71" sent along the following remarks: "An excellent program providing outstanding opportunities;" "One of the best boosts to my academic career;" and "I am not engaged in research because I am doing religious work...;" "I have encouraged my students to pursue it."

Overall, past participants are extremely enthusiastic: "I have thought about it frequently since I left;" "I still correspond with several friends I made at BNL;" "Increased self-confidence;" "I started to play around with the computer myself and learned a little on my own": "One's mind, rather than resources, became the limiting factor." And finally, "Thanks for the fine experience!"

Student stipends and partial travel reimbursement are provided by the Department of Energy's Office of Intergovernmental and Institutional Relations.

-Rosanne Pagano

(Rosanne Pagano is a summer student in the Public Relations Office.)

## Theatre Group Meeting

The Theatre Group will hold its annual election of officers at a meeting on Wednesday, June 21, at 8 p.m., in Berkner Hall. Everyone is welcome.

## Some Tips On the Rips

A summer at Brookhaven without excursions to the ocean is like a day without wine. The Great South Beach, so easily reached via William Floyd Parkway and the Smith Point Bridge (toll \$.75) is one of the most pleasant in the world. It doesn't quite present the perfect wave for surfers, but, come July, the water is most inviting. The unshingled beach and open paths in the swale offer tranquil walking or strenuous jogging. It offers splendid solitude or the most frenetic social activity.

Hot Deli - Meatballs and peppers hero 1.25

For the inlander or newcomer, a word about swimming in the ocean may be appropriate. Heavy surf should be left to strong and experienced swimmers. In moderate surf, diving seaward under the breakers is not only exhilarating, but safer than trying to bob over or to confront them.

On occasion, the surf sets up a circulation resulting in rip currents which can be dangerous. These rips are relatively narrow, high speed currents which return to the ocean the water brought shoreward by

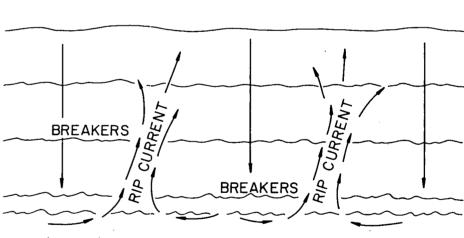
the wind and breaking waves. These currents are distinctly different from the socalled undertow which occurs at, and is confined to, the lip of the beach. They are not always easy to detect at sea level and must be treated with respect.

Surfers have come to use rip currents to return quickly out to the line of fresh breakers. However, anyone caught unwittingly in such a current should not try to swim directly to shore, but swim parallel to the beach until out of the current, and then to the beach. Remember also the extra buoyancy of salt water which makes floating a practical means of regaining breath and composure.

For most, the sun proves a greater hazard than the sea. Use of sunscreen lotions (especially on children) and hats, and the consumption of copious supplies of suitable beverages to combat dehydration, will make being at the beach comfortable, as well as safe. Enjoy!

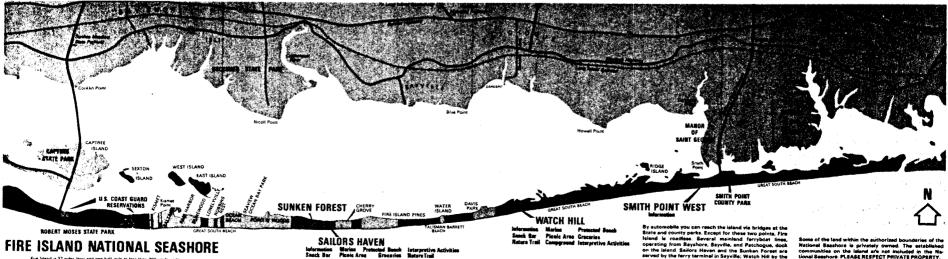
-R.C. Anderson

OCEAN



BEACH

BIRD'S EYE VIEW OF BEACH & NEAR SHORE OCEAN CIRCULATION



One of the most beautiful barrier beaches in the world, Fire Island is 32 miles long and one-half mile to less than 200 yards wide. Still relatively unspoiled and isolated, it is a combination of fine-grained quartz sand, twisted pines, marshes, wildlife, and dunes dotted with beach plum, wild rose, beach grass and poison ivy. Whipped into existence by wind and waves, it could also disappear by the same means. About the only thing that is prohibited on the beach is running on the dunes. As their fragile vegetation protects the existence of the entire island, visitors are cautioned to leave them undisturbed. Besides swimming in the

ocean and strolling on the beach, visitors may cast in the surf for striped bass, bluefish, mackerel, weakfish and fluke. On the bayside, many other fish may be caught and treading for clams is popular. Guided nature walks are offered through the maritime Sunken Forest, a unique retreat from sun and sand. Although the eastern end of the island may be reached by automobile across Smith Point Bridge, regular ferry service is also available from Bay Shore, Sayville and Patchogue to points west.

## BROOKHAVEN BUILLETIN

Published weekly for the employees of

BROOKHAVEN NATIONAL LABORATORY

BERNICE PETERSEN, Editor ANNE BAITTINGER, Staff Writer DOUG HUMPHREY, Photo-Journalist

40 Brookhaven Ave., Upton, N.Y. 11973 Telephone (516) 345-2345

CARL R. THIEN, Public Relations Officer

# Service Awards June

The following employees will receive service awards during the month of June:

#### Thirty Years

Andrew Brems, Jr	P & GA
Ernest M. Guettinger	Reactor
James H. Klein	Nuclear Energy
Walter Sinuk	Accelerator
Daniel Stelmaschuk	Plant Engineering
Michael F. Zukas	Reactor

#### Twenty-Five Years

Roger R. Adams	Accelerator
Frances B. Cammaroto	Director's Office
Gerald FarberEnergy	and Environment
Michael P. McKenna	

#### Twenty Years

Carl H. Distenfeld	Safety & Env. Protec.
	Director's Office
Alexander J. Elia	Instrumentation
Donald M. Gilzinger	Accelerator
Edward Leitgeb	Plant Engineering
	Plant Engineering
Albert M. Roberts	Physics
	Central Shops
William P. Schirmer	Accelerator

#### Ten Years

Antoinette Fridae	Energy & Environment
	Instrumentation
	Physics
	Physics
	Supply and Materiel

## **New York Train Trip**

The Hospitality Committee is planning a group railroad trip to the city on Wednesday, June 21, 1978. Departure will be at 8:32 a.m. from the Patchogue LIRR station. Round-trip fare for adults is \$2.45, children under six years ride free.

Reserve a ticket by sending your fare through the U.S. mail to P.O. Box 322, Upton, New York 11973, no later than Thursday, June 15. Make checks payable to "Brookhaven National Laboratory." Your tickets will be given to you at the train station. Refunds will be made only if cancellations are received by the Friday preceding the scheduled trip.

## **Golf Tournament**

A large turnout of 52 golfers played in the first BGA tournament at Spring Lake. George Korhut was a double winner with low gross of 81 and longest drive. Jim Morris won second low gross with a fine 84 followed by Joe Klemish and Mike Iarocci. The low net winner was Joe DePace with a blistering 65. Marshall Bull and Skelly Frei were only one shot back and John Connelly just two shots behind. Frank Lepera

## Two Hour Pool Closing

A routine training session for BNL lifeguards will pre-empt usage of the swimming pool by employees and family members starting at 7:30 p.m. on Wednesday, June

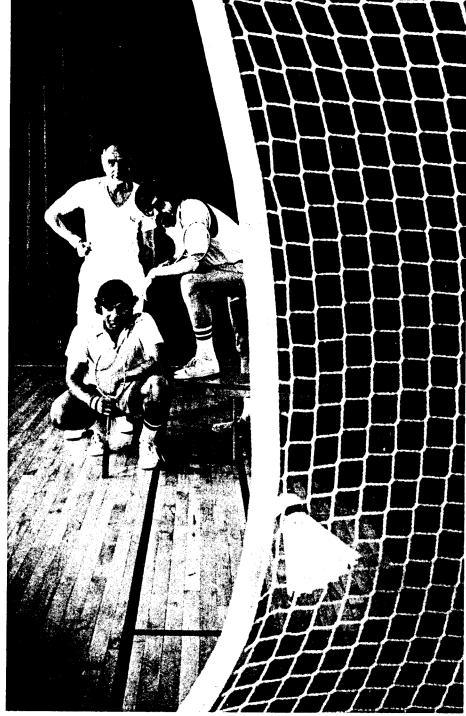
On that evening only, the pool hours will be from 5:00 to 7:30 p.m.

## Gym Lockers

was closest to the pin.

Renewals for locker registrations are due no later than Monday, July 9.

If there is anyone who has a registered locker but has not received a notice for renewal from the Personnel Recreation Office, please contact Blanche Laskee, Ext. 2873, as soon as possible.



At top, R.C. Anderson (left) and John Elmore took the badminton doubles championship, and Elmore also copped the singles title. In foreground, Naresh Bhagat who was a close runner-up in both the singles and doubles, plays with "Dutch" Stoenner.

## **Badminton Wrap-Up**

The Badminton season featured the fifth annual ladder tournament and wound up with a closely contested elimination tournament. The defending singles champion, John Elmore, fought off Naresh Bhagat and Ed Platner to take the title for another year.

John Elmore and R.C. Anderson were the winners in doubles with the team of "Dutch" Stoenner and Bhagat a close second.

Ed Platner, playing well in the elimination tournament, gained the finals but lost to the BNL bird beater, John Elmore.

The results of clinics held for the last two years by John Elmore were obvious as seen by the improved quality of playing. Jack Detweiler, under the tutelage of one or two of the more seasoned players advanced from tenth place in 1977 to sixth place in 1978 – the tournament's most improved player.

A fall tournament is planned for men's singles and doubles. Badminton is one of the best conditioning sports. How about it, ladies, we can arrange a tournament for you. Call John Binnington on Ext. 3489.

## Radio Club

There will be a meeting of the Radio Club at twelve noon on Monday, June 12, in Room C. Berkner Hall.

This meeting will be devoted to final planning for Field Day. A'l members interested in participating in the Club's Field Day operations are urged to attend.

For more information, contact George Walczyk, Ext. 4243, or Alan Bieber, Ext. 2924.

## **Tennis**

Advance reservation of Courts 1, 2 and 3, and on-court reservation of Courts 4, 5, and 6 will become effective June 12. Signup sheets and governing rules for the advance reservation system are available at the BERA Sales Office, Berkner Hall. Players may reserve today for play on Monday. General rules on priority use of the courts and on-court scheduling will be posted on the bulletin board at courtside.

For the period July 5 through August 25, 3:30 to 4:30 p.m. weekdays, Courts 4 and 5 are for the exclusive use of the Summer Recreation Program.

During the BNL Championship Tennis Tournament (dates yet to be announced) the reservation system will be suspended to allow uninterrupted championship play.

## Children's Rec Program

Registrations are now being accepted for the Children's Summer Recreation Program.

The program includes swimming lessons and sports clinics for children of all BNL employees and recreation activities for children of employees living on-site.

A detailed information sheet is atached to the registration application forms which may be picked up at the BERA Film Service Office or at the Personnel Office.

Questions regarding the program may be directed to Blanche Laskee, Ext. 2873.

## It's... Cricket

There will be a cricket game at the recreation park this Sunday at 1 p.m. The occasion is to celebrate the christening of our new cricket mat. Come and try a perfect cricket pitch – finally at the lab site. We need umpires and scorekeepers. Spectators are welcome. This is Co-ed cricket. Remember, cricket at BNL is a social sport.

Future BNL cricket activities include a game with Cornell University here on Saturday, June 17, and a cricket picnic on Sunday, July 16. The picnic will be the summer cricket festival! So watch for further notices.

## **Bicycle Race Results**

A cool, breezy and sunny morning offset any possible effect on attendance by the early (8:15) starting time, and 29 entrants turned out for the annual Spring Race. The winning time for the one-lap race was a bit slower than average, and much slower than the all-time record of 42:14 set last spring by Gary West. The two-lap event was cancelled due to a possible conflict with visitor automobile traffic.

Thanks are due the BNL radio club for providing a mobile radio car to follow the racers, and to Hermann Geist, Richard Watson and John Peters for their assistance in running the race.

Overall Position	Senior Men	Time
1		
2	Raymond Brown Gavin Watson	47:18 47:18.5
3		47:18.5 47:19
6	Andy Alburger Eric Britton	
8	Chris Hodor	47:30
10		47:36
13	Craig Leon John Pepe	48:12 52:21
15	Don Litcher	55:10
16	Norman Rohrig	55:36
24	Edwin Taylor	68:11
21		00.11
	Senior Women	
19	Deborah Brown	58:31
	Junior Men	
4	James Watson	47:25
5	Ben Peierls	47:25.5
7	Danny Chasman	47:35
9	John Willen	47:40
14	Steven Rowley	54:48
16	Ed Thieberger	55:36
20	Adam Scott	59:23
25	Lindsay Adams	70:12
27	Jay Watson	82:29
	Junior Women	
18	Laura Rowley	57:57
	Veteran Men	
11	Gerry Morgan	50:41
12	Frank Fridrich	50:42
15 .	Alan Carroll	55:10
17	Peter Adams	55:38
21	Arthur Scott	60:44
22	Al Deneuve	62:06
23	Ernest Courant	62:09
	Veteran Women	
26	Joan Watson	71:08

## Softball

## League I

### Ravens 8 (2-0) Phoubars 2 (1-1)

Bob Brown made some sparkling plays at second base for the winners, as his teammate, Spider Ligon, pitched a strong game.

Titans 16 (1-1) AMD 15 (0-2)
Pete Stillman hit the cycle for the T

Pete Stillman hit the cycle for the Titans as he went 5 for 5. Bernie Stepnoski also hit well for the winners.

Dirty Sox 10 (2-0) Six Pax 9 (1-1)

The Dirty Sox scored the winning run in the bottom of the seventh inning for the victory. Rick Doran went 4 for 4 for the Sox.

### League II

Charlie Browns 11 (1-0) Cardinals 2 (0-1)

Another fine pitching performance by John Spraggins combined with good defense and clutch hitting was the winning combination for last years league IV champs.

NSLS 16 (2-0) Medical 12 (0-1) ROGA 15 (1-0) Nuke Powers 2 (0-1)

### Employee League

## Diamonds 15 Who's On First 3

Dotty Lundgren went 3 for 4. Ken Asselta hit 2 home runs and Chuck Carlson hit one home run. All the women played a super defensive game.

### Oh Kays 8 Trouble II 5

The Oh Kays had 2 home runs by Alan "Bootie" Woodson and Bob Brown. All-inall it was pretty good playing on the part of the whole team.

## Thrids 25 Turkeys 10

Dave Lieberman went 4 for 5 hitting for the cycle. John Usher also went 4 for 5. The Thrids pounded out 27 hits. Brilliant plays by the women infielders held the Turkeys through the first 5 innings.

### Balls & Strikes 10 TNT 5

Just an all around team effort on the part of the Balls & Strikes, especially the women.

## Rifle & Pistol Club

All members are urged to attend a meeting of the BNL Rifle & Pistol Club scheduled for Wednesday, June 14, in the Recreation Building.

#### Classified Advertisements

#### Placement Notices

The Laboratory's placement policy is to select the bestqualified candidate for an available position, with consideration given to candidates in the following order of priority:(1) present employees within the department, with preference to those within the immediate work group; (2) present employees within the Laboratory as a whole; and (3) outside applicants.

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all nonscientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment, as indicated below. Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Personnel Placement Supervisor, Ext. 2882.

LABORATORY RECRUITMENT: Opportunity for present Laboratory employees.

674 REFRIGERATION AND AIR CONDITIONING ENGINEER, GROUP LEADER - Temporary (3 month position). Plant Engineering Division.

675. HEAVY EQUIPMENT MECHANIC OPERATOR. GROUP LEADER - Temporary assignment at Accelerator Department. Plant Engineering Division.

OPEN RECRUITMENT: Opportunity for present Laboratory employees and outside applicants.

663. BIOLOGY ASSOCIATE - BS degree in biology/ biochemistry or equivalent. Background in cell biology desirable to train in sample preparation for electron microscopy. Biology Department.

664. SENIOR DESIGNER (2 POSITIONS) - AAS or equivalent. Requires experience in machine design, pressure vessel design, vacuum, cryogenic and/or process piping design and knowledge of welding and machine shop procedures. ISABELLE Project, Accelerator Department.

665. TECHNICAL SPECIALIST - AAS or equivalent with extensive experience in second order surveying and precise leveling. Experience in optical tooling is desirable. Must have a New York State Surveyor's licence. Accelerator Department.

666. TECHNICAN (2 POSITIONS) - AAS or equivalent. Experience in assembly of large components. Knowledge of vacuum heat detector and cryogenic devices desirable. Some shift work. ISABELLE Project, Accelerator Department.

667. TECHNICIAN - AAS or equivalent with experience in rf systems. Skill in the construction and testing of prototypes required. ISABELLE Project, Accelerator Department.

668. TECHNICIAN - AAS or equivalent with experience in pulse circuitry, high voltage and/or high current regulated power supplies. Skill in construction and testing of prototype circuits and systems required. Knowledge of digital circuits desirable. ISA-BELLE Project, Accelerator Department.

669. TECHNICIAN - AAS or equivalent with experience in low level analog and digital circuitry. Skill in construction and debugging of prototypes required. ISABELLE Project, Accelerator Department

670. TECHNICIANS (2 POSITIONS) - AAS or equivalent with experience in low level analog and digital circuitry. Testing and maintenance experience on minicomputer or microprocessor logic systems is desirable. Skill in the construction and debugging of prototypes required. ISABELLE Project, Accelerator Department.

671. TECHNICIAN - AAS or equivalent with experience in the construction, testing, and leak checking of ultrahigh vacuum systems. ISABELLE Project, Accelerator Department

672. TECHNICIAN - AAS or equivalent with experience in cryogenics, helium mass spectrometer, leak testing, and silver brazing required. Accelerator De-

673. CABINETMAKER A - Plant Engineering Divi-

## **Autos & Auto Supplies**

68 DODGE DART - 6 cyl, auto, 4 dr, very clean, good cond, excel second car. \$475 firm. 727-7304 after

69 CAMARO - Convertible, 4 spd, 350 engine, new, body good. Ext. 4742 or 744-2688.

66 CHEV - 4 dr, 66,000 mi. \$200. Ext. 2543.

72 JEEP - 4 whl dr, CJ5 model, std shift, roll bar incl, 49,000 mi. \$2400. Ext. 2546 or 744-4047.

71 VW BUS - Good cond, 5,000 mi on rebuilt engine,

am/fm 8 track. \$1500. Ext. 2976 or 732-2309 after 6. 72 SAAB 99 - Orig owner, excel in and out, rebuilt

engine w/5,000 mi, am/fm radials. 878-4261 after 7.

75 HONDA - Motorcycle CB360, blue, like new cond, low mileage, extras. Gene, Ext. 4605 or 744-3945.

73 PORSCHE 914 - 1.7 liter, top running order and shape, 50,000 mi, 27 mpg. Best offer over \$3,750 incl

64 FORD FALCON - 6 cyl, auto. \$250. 732-1913.

TIRES - 600-13. \$3 ea. George, Ext. 4691.

steering wheel. Jack Metzler, Ext. 3433.

72 TOYOTA - Corona Mark II, 4 cyl, auto, 4 dr, new tires, studded snow tires, good cond. \$1295. Vivian, Ext. 3429.

75 CHEVY MALIBU - 4 dr, 6 cyl, p/s, am/fm tinted glass, 38,000 orig. \$2300. Ext. 2546 or 744-4047 after 6.

BRAKE DRUMS - Set of 4, resurfaced, fits Dodge and Plymouth compacts. Joe, Ext. 2251.

69 OLDS - 442 am/fm air, p/s, p/b. \$1100. Tim, Ext.

77 NOVA - 350, auto, mag wheels, 58,000 mi, needs tune up, otherwise good cond. Must sell. \$1200. Joe,

76 SUZUKI - 550cc, 4,800 mi, bars, bags & shield, like new. \$1200. Howard, Ext. 3260.

66 FORD VAN - Mechanically good, body OK, new clutch, new alternator, new battery. \$600. Pat/Dan,

75 JEEP CJ5 - Low mileage, conv top, 4 spd, white spokes, radials. AT6-0626.

73 FORD PINTO - Very good cond, auto, fm radio, blue trimming. \$950 negotiable. Linda, 289-7096.

72 GREMLIN - 6 cyl, std, 70,000 mi. \$650. John, Ext. 4129 or 744-1845.

UTILITY TRAILER - For compact or sub-compact. \$75. John, Ext. 4129 or 744-1845.

68 STEP VAN - 6 cyl, auto, 10 ft cargo area, good for camper. Frank, Ext. 2311 or 567-5131.

75 DODGE - Dart, 29,000 mi, like new, auto trans, 4 4 dr, tint glass, rear defrost, available June 19. Best offer, Richard, Ext. 4518.

NEW & USED TIRES - Rims, repairs, reg, radial, mag wheel service, Dunlop-Michelin, free instal, balance avail. Fred Usack, Ext. 4597 lunchtime or 475-4935

65 MG 1100 - 4 dr, eng and trans, 15,000 mi, new tires, need front/end, exhaust and body work, sell whole or parts. Dan, Ext. 3289.

70 AMBASSADOR - 43,000 mi, new radials, new trans, new shocks, runs like new, 4 dr. \$900. 727-2819.

69 CHEV CAPRICE - Excel running. \$575. 727-2819. 72 PONTIAC - Grand Safari, 9 wagon pass, like new

tires, fm 8 track, roof rack, all power, runs good. \$1400. Ext. 3514 or 821-1296.

68 TRIUMPH SPITFIRE - Needs some work, running cond and body good. \$550. 821-9235 eves. 77 PONTIAC FIREBIRD - 6 cyl, auto, p/s, p/b, am/

fm stereo, grey, clean. \$4250. 979-6232. 76 PINTO WAGON - (MPG) low mileage, excel cond.

Must see. \$2500. Ext. 2926 or 281-0268. 62 NOVA - 350 LT1, less than 1,000 mi on motor, reprogramed power glide, stall converter, 488 posi

rear, plus extras. 724-0659 after 3. 68 PONTIAC - Catalina, 4 dr, V8, p/s, 70,000 mi,

new complete exhaust system, good running cond. \$400. Tang, Ext. 4517 or 744-8546 after 6. 76 HONDA - 360, blue, excel cond, luggage rack,

safety bars, 2 helmets, 6,000 mi. \$800. 589-3086. 70 CHEV - Pick up truck w/Winnebago cap, a/c, am/ fm, auto, 8 cyl, extras. \$2,750. 286-9700.

## **Boats & Marine Supplies**

29' JORGENSON - Full galley, head, flying bridge dual controls, Chrysler eng. \$2300. 744-2821 or Ext.

17' EXPLORER - Fiberglass daysailor, cuddy cabin; roomy cockpit, 4 hp Johnson, ready for water, excel cond. Ext. 4335 or 286-9458.

23' MORGAN SEA SKIFF - 109 hp Grey marine inboard, only 600 hrs, cabin, cushions. \$500. Ext. 3639 or 724-0387 after 5.

SAILBOAT - Lightening class w/trailer, 2 sets sails, fiberglassed wood. Eric, Ext. 2540 or HR3-1727. 17' THUNDERBIRD - Formula, 75 hp Chrysler, extras.

924-8547. SUNFISH - For rent, completely equipped. \$25/wk.

Ext. 2362.

72 JOHNSON OUTBOARD - 4 hp, very few hrs. \$150. Bill, Ext. 2412 or 928-2954.

14' ALUMINUM BOAT - And Johnson 6 hp, extra prop, oars, many extras. \$300. Andy, 286-0377.

16' THOMPSON - 55 hp Evinrude '69, fully equipped,

excel cond. Bob, Ext. 4850 or 286-8433. 20' FLYING DUTCHMAN - Good cond, but needs some maintenance, 4 sails w/trapeze and extras.

\$800. Ken, Ext. 2008 or 928-5875 after 6. TRAILER TIRES - 600x9, new, 4 ply nylon. Pair, \$18 ea

or \$30 for both. Ext. 4058 or 286-0436.

15' OLYMPIA - Runabout w/30 hp rebuilt Johnson, trailer. Used this year, boat needs some work. \$300. Norton, Ext. 2913 or 475-5834.

### Miscellaneous

YARD SALE - June 10 and 11, 154 Clinton Ave, Mastic. 10 a.m.-8 p.m.

YARD SALE - June 10 and 11, school desks, snow tires, tape decks, hair dryer, camper shower, fluorescent fixtures, greenhouse plants. Corner Evans Lane and Pardom Knoll Rd, Miller Place. 473-7667.

YARD SALE - 2 homes. June 10, 51 Radio Ave. Miller Place. Rain Date: following Sat.

GARAGE SALE - June 9 and 10, Quiet Ct, Miller Place, toys, books, baby items, clothes, household goods, lots more. 928-4270.

TAKE IT AWAY - Pool, 18'x4', new vinyl liner, pump, skimmer. \$150. 878-0897.

BOY'S BIKE - 24" Raleigh, 3 spd, hand and coaster brake, excel cond. \$50. Ext. 4676 or 286-9721.

KITCHEN TABLE - Black wrought iron w/4 chairs, \$75; room dividers B/W/I 3 poles, 2 sections, \$25. Ext. 4185 or 698-9116.

MOBILE TRAVELER - 24½ ft, Faulkner awning, converter rear bath w/tub, 30 gal water cap, a/c, color TV ant, hitch, tortion bars, sway control, immac. \$3700. Pat/Dan, 277-1284 or 277-0362.

STONEWARE - Crown royal, serv (8), stainless knife, fork, etc, new. \$50; Universal portable sewing machine w/free arm, button holes, etc, \$50. 281-8497.

POTTERS WHEEL - Dresser, maple, country Victorian; library table, oak; assorted wood chairs; fireplace screen, tools, stroller, back pack, easel. Ext. 3369 or

PUMP - Shallow well piston pump, ½ hp w/Sears 22 gal glass lined storage tank. \$50. Dutch, 727-0092.

WIRE HAIR FOX TERRIER PUPPIES - Excel bloodlines, frisky, non-shedding. 878-4261 after 7. CLARINET - Good cond, ideal for student. \$75. Ext.

2976 or 732-2309 after 6.

SCALLOPED BRICKS - 125 used, \$25; deep well pump. Ext. 4597.

CB - Midland 898B, 24 channel SSB Base, clock, mint cond. \$160. 929-4940 after 6.

SOFA BED - Light brown, very comfortable. 736-1314. FISH TANK - 10 gal fully equipped, plus stand, like new. \$20. Fran, 698-6376.

GE REFRIGERATOR - Avocado, 16 cu ft, 2 dr, 156 lb freezer capacity, excel cond. \$150. 928-4068 after 5. MOVIE CAMERA - Yashica Reg:8 all power, zoom lens. \$20. Bill, Ext. 4636.

NATIONAL 77X - Communications 4 Band Receiver. \$60. Al, Ext. 3354 or 727-7115.

WRANGLER WESTERN SADDLE - W/bridle. \$45. A. Campbell, Ext. 3354 or 727-7115.

SAMSONITE SILHOUETTE LUGGAGE - 4 pc marina blue, tote to pullman; Motorola stereo, hi-fi, ideal for den. 584-5919 after 6.

#### Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed or national origin of the applicant.

### For Sale

SHOREHAM - 4 bdrm Colonial, 2½ baths, laundry rm, eik, formal d/r, 2 car garage and full bsmt, 1 acre fenced. \$56,500. 744-2821.

BELLPORT VILLAGE.- ½ acre, 3 bdrms, 2 baths, 2 car garage, screened porch, attached greenhouse, many extras. \$47,500. 286-2724.

MIDDLE ISLAND - Expanded Cape Cod, 4 bdrms, 24' 1/r, d/r, eik, screened patio, fin bsmt w/bar, 3 zone oil heat, will hold mortgage. \$39,000. Ext. 3635.

CORAM - Townhouse, 3 bdrm, eik, all appl, swimming pool, club and tennis courts. \$1,500 over existing mortgage. 473-7914 after 4:30.

SETAUKET - Owner moving, great sacrifice, 4 bdrms, 2 baths, 2 kit, huge den, only 2½ yrs young, hi-ranch, low 40's. Martha, Ext. 3307 or 751-8649.

SETAUKET GABLES - 4 bdrm, d/r, eik, den, 2 fp, central a/c, sod lawn, underground sprinklers, 2 zone oil hw heat, fully carpeted, near SUNY, LIRR, 3 Vil Schls, immaculate. \$57,990. Ext. 2902.

MORICHES - Custom built on ½ acre, 7 rm split level, 3 bdrms, 1½ baths, 19x34 fam rm, fully carpeted, professionally landscaped, waterview, beach and boat rights, many extras. \$45,000. Ext. 4525 or 878-

CENTER MORICHES - Waterview Colonial w/full bsmt, ½ acre fenced yard, 4 bdrms, 1/r, d/r, large country kit, den w/brick fp, wood floors. 878-4835.

BROOKHAVEN - 3 bdrm, custom ranch, new 20x20 barn on 11/3 acres, very desirable area, lux landscaping, extras too numerous to list. 286-0246.

SHIRLEY - Beautiful 3 bdrm contemporary ranch, den, eik, l/r, d/r, bsmt, garage, all set on a landscaped 1/3 acre just min from Lab. \$39,900. 281-3250.

MIDDLE ISLAND - 3 bdrms, 2 baths, fp, w/w, beautiful trees, 1½ acres, all cedar no maintenance, all appl, full bsmt, hot water heat. \$65,000. Ext. 3929 or 924-3761.

E. PATCHOGUE - 10 rm Colonial, beautifully landscaped, rock garden, gazebo, 1.4 acres, horse country, 4 bdrms, 30 ft l/r, fp, formal d/r, laundry rm off kit, 2 garages, full bsmt, low 60's. 475-0168.

MASTIC BEACH - 4 bdrm Cape, full bsmt, OHW, garage, shed, fenced, patio, eik, taxes \$800, landscaped, paved driveway, corner lot 100x100, near water, must sell due to death. VA approved, no money down. \$26,000. Tom, 325-1033.

MASTIC BEACH - 4 yr old house, 6 rms, full bsmt, fenced 80x125. 281-5498.

CORAM - Dutch Colonial, 3 bdrm, 2½ baths, 1/r, fp, d/r, eik, one car garage, ½ acre beautifully landscaped, school dist #11, 331-1640.

MOUNT SINAI NORTH - 7½ rm, 2 baths, custom ranch, quality constructed, semi-fin bsmt, garage, ½ fenced, magnificant treed and landscaped acre, 6 appl, carpeting, must be seen. Owner. \$40,990. 473-

MASTIC BEACH - Must sell small home on 120x100 lot, 2 bdrm, oil H/W heat, low taxes, garage, fp, sun-

ROCKY POINT - The Tides, 70' ranch on a beautiful treed ½ acre, 3 bdrm, oak floors, fp, full bsmt, patio, priv beach, golf, fully furn or not. \$45,000. Ext. 4605. or 744-6482.

MIDDLE ISLAND - Near Rocky Point, 7 rm ranch on cul-de-sac, 4½ yrs, ½ partially wooded acre, garage, full bsmt, low cash, take-over mortgage. \$37,000.

ROCKY POINT - 4 bdrm Colonial, eik, 21/2 baths, fp, w/w carpeting ,all appl, garage, wood deck, ½ acre, priv beach. 744-1156.

HEAD-OF-THE-HARBOR - Custom farm ranch, 6 bdrms, 5 baths, 3 fp, in addition, lower level fin, 2.48 secluded wooded acres, MUST SELL, price negotiable. 584-6058 or 981-1327.

RIDGE - 1 acre bldg plot fully wooded, residential street, near Lab. 924-3236.

#### For Rent

YAPHANK - German Gardens, small 3 rm bungalow. YA4-3946.

VERMONT CHALET - Furn, fp, lake/pond swimming, canoeing, fishing, woodland trails, nearby tennis, golf, riding, music festivals, summer stock antiques, rent wkly/monthly. 757-5599 after 4.

SHOREHAM - 7 rm house, furn, 2 baths, eik, all appl, Steinway piano, wooded 1/2 acre, walk to priv beach, avail Sept 15 thru June. 744-3744.

RIVERHEAD - Large furn rm, kitchen privileges in

quiet farmhouse, reasonable rent inclutil, 15 min to Lab. 727-8750 or 727-1022 after 5. MILLER PLACE - Spacious 4 bdrm Colonial, 5 appl,

fenced ½ acre, near beach, 2 car garage, 20 min from SUNY and BNL, avail Aug 15. 928-4270.

POCONOS - Chalet w/sundeck, sleeps 6, swimming, hiking, tennis, near Lake Wallenpaupack. 289-2159. MILLER PLACE - 3 bdrm house, fully furn, avail from

#### Wanted

Aug 1. 928-0821 after 5.

RELIABLE - Housecleaning woman, 1 day/wk, Setauket area. 751-3883.

TABLE - Round solid oak, approx 48" dia, pedestal bottom, claw feet. Pat, Ext. 4519.

BABYSITTER - Blue Point area or on site for boy 9 and girl 6, from about 9 to 1 p.m., M-F, during school vacation. Carol, Ext. 3267, 363-2130.

UMBRELLA STROLLER - Excel cond, sturdy. Sue, Ext.

CASSETTE PLAYER - And/or speakers for car. Damian, 744-5079

ENGINE - 7 or 8 hp, verticle shaft, gd cond. Reasonable. Pete, Ext. 3868, 878-1225 GOOD HOME - For 3 mo male Sheltie-Terrier mix

puppy, housebroken and intelligent. Ext. 3347. BABYSITTER - For summer mos, 8 yr old girl, on site/

N. Shirley area, 9-3. Norma, Ext. 4019. TO RENT - House or apt for summer staff, July and/

OUTBOARD - Late model, 60-80 hp. Lawrence, 472-0721.

or Aug, earlier occupancy if avail. Ext. 4518.

HOME - For kittens, 2 females black w/white markings. Linda, 475-1354. MINI BIKE - 3-3½ Briggs Stratton eng, ok if eng needs

work. Tom, 325-1033. RADIO - Engineers' handbook by Frederick Terman, McGraw-Hill, any cond. Ralph, Ext. 2591.

LADDER - At least 25 ft working length ext. Ext. 2252. GOOD HOME - For small dog, Cocker mix, 3 yrs old. 878-4664 after 5 p.m.

TYPIST - Experienced, to type Physics thesis incl equations and tables. Vinita, Ext. 3526, 744-6962.

ROOMMATE(S) - To share house near Lab, flexible location. Peter, Ext. 3417. HOME - For female kitten (10-12 wks) black, brown

& white, lovable. Marie, Ext. 3552. TIRE - 165-15" Michelin steel belted radial, fair to gd

GIRL SCOUT UNIFORM - Size 10. Ext. 4547, 289-7470.

SEWING MACHINE TABLE - Pref old, already have machine. Bob, Ext. 3565. BICYCLE - 5 spd, mens or womens, 26" or 27". Under

#### \$75. Bob, Ext. 3565. Lost & Found

cond. 475-0144 after 6 p.m.

LOST - Pair of men's sunglasses, metal rims, lost on site. G. Williams, Ext. 4383.

### Car Pools

E. ISLIP - 2 man car pool desires other riders-drivers. Ext. 4532.

BELLPORT - Driver for car pool. Bookless, Ext. 4510. L.I.E. - Exit #36 and #37. New car pool. Neil Katz, Ext. 2281 or 621-7557 after 6:30.

## Services

BABYSITTING - Weekdays only. Anne, 821-1490.

CONCRETE & MASON WORK - Patio, walks, repairs, etc. Pat, 744-8425.

ACCIDENT? CAR DENTED? - Need a paint job?

Don't be drowned in a sea of estimates and other hassles. Ext. 2546 or 744-4047 after 6. PAINTING - Handy man services. 286-8758 after 5. MOVING? - Will move in the vicinities of Suffolk &

Nassau Counties and 5 boroughs. Robert Glucksman, 764-7453 after 5:30. FURNITURE STRIPPING - Varnish and paint removed; chairs caned, re-glued, and repaired. 924-8547.

ROTOTILLING - Gardens, foundation planting, new

lawns, up to 1,000 sq ft for only \$14. Tom, 325-1033. PAINTING - Interior/exterior, free estmates, reasonable rates. 283-6255 or 727-6539 after 6.

AUTO ENGINES - Steam cleaned at home, one \$10, additional \$7. Campers, boats, mobile homes steamed or pressure washed \$1.50/lineal ft waxing incl. 281-

RACQUET STRINGING - 24 hr service for info, call Cliff, Ext. 3514 or 585-6811 days or eves.

DOG GROOMING - Small breeds preferred, bath and haircut, \$9, slightly extra for heavily matted dogs. Maria Beckman, 924-3756.

ASPHALT PAVING - And sealing. 475-4382.

DRESSMAKER - Custom made gowns, dresses, suits, alterations. Catherine, 588-5476.